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IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1 1. (original) A communication system for transporting Internet protocol-
2 formatted communications over a Universal Mobile Telecommunications System (UMTS)
3 wireless communications system, the communication system including a base station and
4 a radio network controller, the communication system further comprising:
5   an inter-working gateway adapted for interconnection to the radio network
6 controller and the base station, the inter-working gateway being adapted to communicate
7 via Internet transport protocols and UMTS-based transport protocols, the inter-working
8 gateway being further adapted to reformat communications with movable UMTS-based
9 radio-controlled network layer protocols for transport to the radio network controller and
10 to reformat communications with movable Internet radio-controlled network layer
11 protocols for transport to the base station.

1 2. (original) The communications system as recited in claim 1, wherein the
2 UMTS communications system exists at an installed site.

1 3. (original) The communications system as recited in claim 1, wherein the
2 inter-working gateway is supplied as pre-installed with the transport protocols.

1 4. (original) The communications system as recited in claim 1, wherein the
2 inter-working gateway is adapted to receive and download the radio-controlled network
3 layer protocols and the transport protocols from the base station.

1 5. (original) The communications system as recited in claim 1, wherein the
2 base station and the inter-working gateway are interconnected in a local area network.

1 6. (original) The communications system as recited in claim 1, further
2 comprising:
3   an SDRAM memory;

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4   one or more channel elements, each comprising a digital signal processor and

5   associated flash memory and an application specific integrated circuit to manage

6   baseband processing; and

7   a microprocessor for configuring each channel element, storing user data in the

8   SDRAM memory, and exchanging user data with the digital signal processor.

1   7.   (original) The communications system as recited in claim 1, wherein an

2   interconnection of the inter-working gateway with the base station carries the

3   communications reformatted with the movable UMTS-based radio-controlled network

4   layer protocols in a first direction, and the communications reformatted with the movable

5   Internet radio-controlled network layer protocols in a second direction.

1   8.   (original) The communications system as recited in claim 1, wherein an

2   interconnection of the inter-working gateway with the radio network controller carries the

3   communications reformatted with the movable UMTS-based radio-controlled network

4   layer protocols in a first direction, and the communications reformatted with the movable

5   Internet radio-controlled network layer protocols in a second direction.

1   9.   (original) The communications system as recited in claim 1, wherein

2   an interconnection of the inter-working gateway with the base station carries the

3   communications reformatted with the movable UMTS-based radio-controlled network

4   layer protocols in a first direction, and the communications reformatted with the movable

5   Internet radio-controlled network layer protocols in a second direction, and

6   an interconnection of the inter-working gateway with the radio network controller

7   carries the communications reformatted with the movable UMTS-based radio-controlled

8   network layer protocols in a first direction, and the communications formatted with the

9   movable Internet radio-controlled network layer protocols in a second direction.

1   10.   (original) The communications system as recited in claim 1, further

2   comprising:

3   a Node-B base station adapted for transmitting and receiving cellular telephone

4   communications, the Node-B base station being interconnected with the radio network

5   controller for exchanging wireless cellular telephone communications.

1   11.   (original) The communications system as recited in claim 10, wherein the

2   UMTS communications system exists at an installed site.

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1   12.   (original) The communications system as recited in claim 10, wherein the
2 inter-working gateway is supplied as pre-installed with the transport protocols.

1   13.   (original) The communications system as recited in claim 10, wherein the
2 inter-working gateway is adapted to receive and download the radio-controlled network
3 layer protocols and the transport protocols from the base station.

1   14.   (original) The communications system as recited in claim 10, wherein the
2 base station and the inter-working gateway are interconnected in a local area network.

1   15.   (original) The communications system as recited in claim 10, further
2 comprising:
3   an SDRAM memory;
4   one or more channel elements each comprising, a digital signal processor and
5 associated flash memory and an application specific integrated circuit to manage
6 baseband processing; and
7   a microprocessor for configuring each channel element, storing user data in the
8 SDRAM memory, exchanging user data with the digital signal processor, and processing
9 the movable protocols.

1   16.   (original) The communications system as recited in claim 10, wherein an
2 interconnection of the inter-working gateway with the base station carries the
3 communications reformatted with the movable UMTS-based radio-controlled network
4 layer protocols in a first direction, and the communications reformatted with the movable
5 Internet radio-controlled network layer protocols in a second direction.

1   17.   (original) The communications system as recited in claim 10, wherein an
2 interconnection of the inter-working gateway with the radio network controller carries the
3 communications reformatted with the movable UMTS-based radio-controlled network
4 layer protocols in a first direction, and the communications reformatted with the movable
5 Internet radio-controlled network layer protocols in a second direction.

1   18.   (original) The communications system as recited in claim 10, wherein
2   an interconnection of the inter-working gateway with the base station carries the
3 communications reformatted with the movable UMTS-based radio-controlled network
4 layer protocols in a first direction, and the communications reformatted with the movable
5 Internet radio-controlled network layer protocols in a second direction, and

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6 an interconnection of the inter-working gateway with the radio network controller

7 carries the communications reformatted with the movable UMTS-based radio-controlled

8 network layer protocols in a first direction, and the communications reformatted with the

9 movable Internet radio-controlled network layer protocols in a second direction.

1 19. (original) An inter-working gateway for wirelessly transporting Internet

2 protocol-formatted communications in a Universal Mobile Telecommunications System

3 (UMTS) communications system, the inter-working gateway comprising:

4 means for communicating via Internet transport protocols and UMTS-based

5 transport protocols;

6 means for reformatting communications using movable UMTS-based transport

7 protocols for transport to a radio network controller; and

8 means for reformatting communications using movable Internet radio-controlled

9 network layer protocols from the radio network controller to the inter-working gateway.

10 20. (withdrawn) A method for transporting Internet protocol-formatted

11 communications over a Universal Mobile Telecommunications System (UMTS) wireless

12 communications system, the method comprising:

13 segmenting Internet-formatted communications into Internet framing protocol-

14 protocol data units (FP-PDUs);

15 multiplexing the FP-PDUs over separate label switched paths via multiple

16 protocol label switching (MPLS); and

17 exchanging the multiplexed FP-PDUs as formatted multiplexed MPLS data

18 segments between a base station and a radio network controller.

1 21. (withdrawn) The method as recited in claim 20, further comprising:

2 installing radio-controlled network protocols in an inter-working gateway

3 interconnected between the base station and the radio network controller.

1 22. (withdrawn) The method as recited in claim 20, further comprising:

2 segmenting the Internet-formatted communications into FP-PDUs of 350 octets

3 maximum length.

1 23. (withdrawn) The method as recited in claim 20, further comprising:

2 formatting the FP-PDUs with UMTS radio-controlled network layer protocols for

3 transport in the UMTS wireless communications system; and

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4   formatting the FP-PDUs with Internet radio-controlled network layer protocols

5 for transmission as wireless Internet communications.

1   24.   (withdrawn) The method as recited in claim 21, further comprising:

2   transporting the FP-PDUs formatted with UMTS radio-controlled network layer

3 protocols from the base station in a first direction; and

4   transporting the FP-PDUs formatted with Internet radio-controlled network layer

5 protocols in a second direction.

1   25.   (previously presented) A method for transporting Internet protocol-

2 formatted communications over a Universal Mobile Telecommunications System (UMTS)

3 wireless communications system, the UMTS communication system including a base

4 station and a radio network controller, the method comprising:

5   reformatting communications using movable UMTS-based radio-controlled

6 network layer protocols for transport between the base station and the radio network

7 controller; and

8   reformatting communications using movable Internet radio-controlled network

9 layer protocols for transport between the base station and the radio network controller.

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